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Title : Close encounters of the shark kind: Predator mobbing by juvenile bottlenose dolphins in Shark Bay, Western Australia

Category : Behavior

Student : Not Applicable

Preferred Format : Poster Presentation

Abstract : In the course of longitudinal research on the development of independent, immature bottlenose dolphins (*Tursiops aduncus*), we documented three encounters with tiger sharks (*Galeocerdo cuvier*) in which the dolphin response was consistent with descriptions of predator mobbing by avian and terrestrial species. In these encounters, sharks were of a size known to attack dolphins (2.5-3.5 m long) and dolphins were juvenile females (<2 m long). Since weaning, these dolphins have been subjects of our research in which focal-animal sampling is used to record the behavior, habitat and social associates of individual dolphins. Prior to each shark encounter, the focal dolphin was foraging in a shallow seagrass habitat with at least one dolphin nearby. During encounters, dolphins remained within touching distance of the shark for up to 5 min. In the first encounter, the focal dolphin hurriedly joined two other juveniles and an adult female to form a tight group with the shark closely following. Dolphins and shark switched roles several times, ending with dolphins following as the shark zigzagged away. In a second encounter, the focal dolphin approached and positioned herself alongside a shark, then swam over the shark to push vigorously against the shark's head with her rostrum, after which she porpoised away. In the third encounter, two sisters approached and circled a shark. The younger dolphin followed closely, eliciting aversive head movements from the shark, then the older sister repeatedly hit the shark in the face with her tail, after which both dolphins moved slowly away. Following these encounters, each focal dolphin resumed foraging within 5-20 min, and two caught a fish within 10-30 min. These observations are unique in that systematic behavioral sampling techniques were used to provide details of the behavior of individually-known dolphins before, during and after a rarely-seen event: an encounter with a predator.